

AMENDMENTS TO THE CLAIMS

Following is a complete listing of claims, as amended:

1-34. (Canceled)

35. (Currently Amended) ~~The method of claim 27A~~ method for treating movement disorders, comprising:

implanting an electrode array having a plurality of first electrodes arranged in a first row and a plurality of second electrodes arranged in a second row at a stimulation site over the central sulcus of the patient; and applying an electrical signal to at least some of the first electrodes and/or the second electrodes, wherein the patient has a movement disorder that is worse on a first side of the patient than on a second side of the patient opposite the first side, and wherein implanting the electrode array comprises positioning the electrode array over the precentral gyrus on the second side of the patient only.

36. (Original) A method for treating a patient having a movement disorder that is worse on a first side of the patient than on a second side of the patient opposite the first side; comprising:

implanting an electrode at a stimulation site located over at least a portion of the precentral gyrus of the patient on only the second side of the patient; and applying stimulation to the electrode to treat the movement disorder on both the first side and the second side of the patient.

37. (Original) The method of claim 36 wherein implanting the electrode comprises positioning an array having a plurality of electrodes over only the precentral gyrus of the patient.

38. (Original) The method of claim 36 wherein implanting the electrode comprises positioning an array having a plurality of electrodes such that at least one electrode is over the precentral gyrus and at least one other electrode is over the postcentral gyrus of the patient on only the second side of the patient.

39. (Original) The method of claim 36, wherein implanting the electrode comprising placing an array having a plurality of first electrodes arranged in a first row and a plurality of second electrodes arranged in a second row at the stimulation site.

40. (Original) The method of claim 39 wherein implanting the electrode array comprises positioning the first and second rows at an oblique angle relative to the central sulcus of the patient.

41. (Original) The method of claim 39 wherein implanting the electrode array comprises positioning one of the first electrodes and one of the second electrodes over the precentral gyrus of the patient, and positioning another one of the first electrodes and another one of the second electrodes over the postcentral gyrus of the patient.

42. (Original) The method of claim 36 wherein applying stimulation to the electrode comprises delivering an electrical current directly to the dura of the patient at the stimulation site.

43. (Original) The method of claim 36 wherein applying stimulation to the electrode comprises delivering an electrical current directly to the patient at least proximate to the dura over the stimulation site.

44. (Original) The method of claim 43 wherein delivering an electrical current directly to the patient comprises applying a unipolar electrical potential to the electrode implanted at the stimulation site.

45. (Original) The method of claim 43 wherein delivering an electrical current directly to the patient comprises applying a unipolar electrical potential to a plurality of electrodes implanted at the stimulation site.

46. (Original) The method of claim 43 wherein delivering an electrical current directly to the patient comprises applying a bipolar electrical potential to a plurality of electrodes implanted at the stimulation site.

47-71. (Canceled)